

**MUSSEL SURVEYS
FOR THE PROPOSED STABILIZATION OF THE ARCHIPELIGO ISLANDS
NEAR ROSEBUD ISLAND, LAKE ONALASKA,
POOL 7, UPPER MISSISSIPPI RIVER**

Project: Considerable shoreline erosion occurred to the archipeligo island complex located off the southeast corner of Rosebud Island (RM 703) during the 2001 flood. The force causing this erosion is primarily wave action. The U.S. Fish and Wildlife Service proposes to stabilize this island complex with a combination of offshore and nearshore structures, including rock mounds, rock/log islands, riprap, groins, sand berms, and willow plantings.

Habitat Description of Area Surveyed for Mussels: Water depths ranged from 0.3 to 1.2 meters. Most of the area contained dense stands of submersed aquatic vegetation. Substrates ranged from loosely packed sand to muck. The area was very lentic in nature, with no visual current.

Methods: Two timed 60-minute (two people for 30 minutes) pollywog/snorkeling searches were completed on 11 September 2002 at the proposed stabilization area (see figure 1). Dan Kelner and Dennis Anderson from the St. Paul District, US Army Corps of Engineers performed the mussel surveys.

Results: Eight commonly occurring species were encountered, with giant floaters (*Pygandon grandis*), threeridge (*Ambema plicata*), and fat mucket (*Lampsilis silquoidea*) dominating the mussel assemblage present (Table 1). No Federally or Wisconsin listed endangered or threatened mussel species were encountered during the survey. The species assemblage found is typical of lentic habitat conditions. The lentic habitat conditions and the species assemblage found would indicate that the Federally endangered Higgins' eye pearlymussel (*Lampsilis higginsii*) is not likely to be present in the project area.

Zebra mussel infestation on the native mussels was moderate, ranging from a few to many per native mussel. The zebra mussels were represented by a wide range of age classes, from very young to age 2.

Table 1. Qualitative mussel survey results from 11 September 2002 near Rosebud Island in Lake Onalaska, pool 7, Upper Mississippi River.

Species	Common name	Timed search 1 – 60 minutes	Timed search 2 – 60 minutes	Total
<i>Lampsilis siliquoidea</i>	Fat mucket	19	16	35
<i>Pygandon grandis</i>	Giant Floater	59	10	69
<i>Toxolasma parvus</i>	Lilliput	2	1	3
<i>Utterbackia imbecillis</i>	Paper floater	1		1
<i>Quadrula pustulosa</i>	Pimpleback		1	1
<i>Potamilus ohiensis</i>	Pink papershell	1		1
<i>Lampsilis cardium</i>	Pocketbook	2	6	8
<i>Amblema plicata</i>	Threeridge	24	14	38
Total		108	39	147
Number of species		7	6	8

Figure 1. Location of 11 September 2002 Timed Mussels Surveys Near Rosebud Island in Lake Onalaska, pool 7, Upper Mississippi River

